

## **REMARKS**

### **Amendments**

Applicants cancelled claim 40.

### **Claim Rejections 35 U.S.C. §112**

Applicants wish to clarify their comments in the March 21, 2011 Supplemental Amendment regarding Dr. Shibuya's suggestion at the interview that Applicants' use of the term "probe substance" as a synonym of "analyte" may be inconsistent with a customary meaning of "analyte". Applicants respectfully point out that, as is clear from the totality of their specification, in the Applicant's invention claimed method, a substance to be captured and recovered is "a biological substance", that is, an analyte of the invention is "a biological substance". The probe substance is a substance comprised in the chimetric substance and capable of interacting with the biological substance.

It was stated in the October 27, 2010 Office Action that in Van Beuningen "...antibodies bind to analytes which can be peptides (i.e., probe substance)." Office Action, page 7. Hence, the assertion that "probe substance" is synonymous with "analyte" originated in the Office Action, in the context of discussion of Van Beuningen. Applicants do not use the term "probe substance" as a synonym for "analyte". Thus, the statement "they are entitled to be their own lexicographers" in the March 21, 2011 Supplemental Amendment was misplaced and is hereby withdrawn.

### **Claim Rejection under 35 USC 102(e)**

In addition to the arguments set forth in the March 21, 2011 Supplemental Amendment, Applicants submit that the complex consisting of the analyte, the biotin, and an avidin-label conjugate in Van Beuningen is used just to detect the analyte (that according to the Office Action may be a probe substance), which is captured by the target-molecule immobilized on the solid surface.

To the contrary, the chimeric substance of Applicants' invention functions as a reversibly detachable bridge between a biological substance to be captured and an antibody immobilized on the solid surface. The reversibly detachable bridge makes it possible to dissociate, dilute and recover the biological substance.

This is another very important and patentable distinction over the prior art, as explained by Applicants:

An antibody A immobilized to the solid-phase surface F is next dissociated from the peptide T in the complex of the biological substance C (refer to FIG. 10).

In this dissociation method, an excess amount of the peptide T itself is added to a region of the solid-phase surface F to replace the peptide T in the labeling substance L recognized and trapped by the antibody A and eluted as complex C accompanied by the biological substance B into a liquid phase (refer to FIG. 10)).

FIG. 10 attached schematically shows how excessively-added free peptide T can replace the peptide T to elute and free the complex C including the biological substance B, the probe substance P and the labeling substance L. Specification, paragraphs 0103-0105, pages 28-29.

This distinction is underscored by claims 37 and 38.

For at least the reasons set forth above, in the March 21, 2011 Supplemental Amendment, and the Amendment of February 28, 2011, Applicants respectfully submit their claimed method is novel in view of Van Beuningen, e. g., because of elements bonded to each other by the organic compound (or the linker) and the function of chimeric substance to recover the biological substance in Applicants' invention.

## **Conclusion**

Applicants respectfully submit that all claims are in condition for allowance, an indication of which is solicited. In the event any outstanding issues remain, Applicants respectfully request that the Examiner contact their undersigned counsel to resolve such issues in an expeditious manner and place the application in condition for allowance.

The Commissioner is hereby authorized to charge any fees connected with this filing, which may be required now, including extension of time fees, or credit any overpayment to Deposit Account No. 50-2478 (039371-20).

Respectfully submitted,

/Stanislaus Aksman/

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Stanislaus Aksman  
Registration No. 28,562

Customer No. 25570

Roberts Mlotkowski Safran & Cole, P.C.  
P.O. Box 10064  
McLean, VA 22102  
Phone No.: (703) 584-3270 x 218  
Direct: (703) 677-3003  
Fax No.: (703) 848-2981